

Abstract of the Disclosur

The present invention provides an improved process of using electrostatics in the formation of nonwoven webs. In the process of the present invention, a source of fibers is provided. The fibers and filaments are subject to an electrostatic charge which is generated via an electrostatic unit having a first side and a second side opposed to each other, wherein the electrostatic unit has an array of protrusions on the first side and the second side of the electrostatic unit. Once subject to the electrostatic charge, the fibers are collected on a forming surface to form a nonwoven web. The present invention also provides an apparatus for forming a nonwoven web. The apparatus of the present invention has a source of fibers, a device for applying an electrostatic charge to said fibers, wherein device having a first side and a second side opposed to each other, wherein the device has an array of protrusions on the first side and the second side of the device; and a forming surface for collecting said fibers.